

WHAT IS CLAIMED IS:

1. A recording apparatus for encoding image data to record it onto a recording medium, comprising:

- 5 encoding means for encoding an inputted image signal by a plurality of different encoding methods to form a plurality of encoded image data;
- sync data generating means for generating a plurality of sync data having different patterns
- 10 respectively corresponding to said plurality of encoding methods;
- control means for controlling said sync data generating means so as to output said sync data having the pattern corresponding to a selected one of
- 15 said plurality of encoding methods; and
- recording means for forming a plurality of sync blocks by adding said sync data corresponding to said selected encoding method to each of a predetermined amount of said encoded image data encoded by the
- 20 selected encoding method and recording an encoded data stream constructed by said plurality of sync blocks onto the recording medium.

2. An apparatus according to claim 1, wherein
- 25 said plurality of encoding methods include a high quality encoding method of encoding a video signal of high quality and a standard quality encoding method

of encoding a video signal of standard quality.

3. An apparatus according to claim 2, wherein
said high quality encoding method is an MP@HL method
5 or an MP@H-14 method in MPEG encoding system and said
standard quality encoding method is a DV format
method specified by the HD Digital VCR Council.

4. An apparatus according to claim 1, further
10 comprising:

reproducing means for reproducing the encoded
data stream from said recording medium;

decoding means for decoding by said plurality of
encoding methods the encoded image data in the
15 encoded data stream reproduced by said reproducing
means;

sync data detecting means for detecting said
sync data from a plurality of sync blocks reproduced
by said reproducing means and discriminating the
20 encoding method of said reproduced encoded image data
on the basis of a result of said detection; and

control means for controlling the encoding
method which is used in said decoding means on the
basis of the encoding method discriminated by said
25 sync data detecting means.

5. An apparatus according to claim 1, wherein

said recording medium is a magnetic tape.

6. A reproducing apparatus for reading out
image data from a recording medium to reproduce it,
5 comprising:

reproducing means for reproducing an encoded
data stream from said recording medium;

decoding means for decoding by a plurality of
different encoding methods encoded image data in the
10 encoded data stream reproduced by said reproducing
means;

sync data detecting means for detecting sync
data from a plurality of sync blocks in the encoded
data stream reproduced by said reproducing means and
15 discriminating the encoding method of said reproduced
encoded image data in accordance with a result of
said detection; and

control means for controlling the encoding
method which is used in said decoding means on the
20 basis of the encoding method discriminated by said
sync data detecting means.

7. An apparatus according to claim 6, wherein
said plurality of encoding methods include a high
25 quality encoding method of encoding a video signal of
high quality and a standard quality encoding method
of encoding a video signal of standard quality.

8. An apparatus according to claim 7, wherein
said high quality encoding method is an MP@HL method
or an MP@H-14 method in MPEG encoding stream and said
standard quality encoding method is a DV format
5 method specified by the HD Digital VCR Council.

9. An apparatus according to claim 6, wherein
said recording medium is a magnetic tape.

10 10. A recording method of encoding image data
to record it onto a recording medium, comprising:
an encoding step of encoding an inputted image
signal by a plurality of different encoding methods
to form a plurality of encoded image data;
15 a sync data generating step of generating a
plurality of sync data having different patterns
respectively corresponding to said plurality of
encoding methods;
a control step of controlling so as to output
20 said sync data having the pattern corresponding to a
selected one of said plurality of encoding methods in
said sync data generating step; and
a recording step of forming a plurality of sync
blocks by adding said sync data corresponding to said
25 selected encoding method to each of a predetermined
amount of said encoded image data encoded by the
selected encoding method and recording an encoded

data stream constructed by said plurality of sync blocks onto the recording medium.

11. A method according to claim 10, wherein
5 said plurality of encoding methods include a high quality encoding method of encoding a video signal of high quality and a standard quality encoding method of encoding a video signal of standard quality.

10 12. A method according to claim 11, wherein said high quality encoding method is an MP@HL method or an MP@H-14 method in MPEG encoding system and said standard quality encoding method is a DV format method specified by the HD Digital VCR Council.

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13. A method according to claim 10, wherein said recording medium is a magnetic tape.

14. A reproducing method of reading out image
20 data from a recording medium to reproduce it, comprising:

a reproducing step of reproducing an encoded data stream from said recording medium;

a sync data detecting step of detecting sync
25 data from a plurality of sync blocks in the encoded data stream reproduced in said reproducing step and discriminating an encoding method of encoded image

data of said reproduced encoded data stream in
accordance with a result of said detection; and

a decoding step of decoding the encoded image
data in the encoded data stream reproduced in said
5 reproducing step, by the encoding method detected in
said sync data detecting step.

15. A method according to claim 14, wherein the
encoding methods include at least one of a high
10 quality encoding method of encoding a video signal of
high quality and a standard quality encoding method
of encoding a video signal of standard quality.

16. A method according to claim 15, wherein
15 said high quality encoding method is an MP@HL method
or an MP@H-14 method in MPEG encoding system and said
standard quality encoding method is a DV format
method specified by the HD Digital VCR Council.

20 17. A method according to claim 14, wherein
said recording medium is a magnetic tape.